

D & D SUBGROUP HIGHLIGHTS
June 15, 1999

This meeting was held in the EESB Chinook Room. The meeting began at 9:00 a.m.

Oxy-Gasoline Cutting Torch Presentation

Greg Berlin introduced and played a video that showed the oxy-gasoline torch in use. The manufacturer is Petrogen International, Ltd. The torch is designed to cut steel and has been demonstrated at Fernald. An Innovative Technology Summary Report was issued on this technology in December 1998 by DOE and will be sent to all subgroup members. The oxy-gasoline torch outperforms the oxy-acetylene torch in productivity, operation, effectiveness, cost, airborne contaminants and health and safety concerns. Greg Berlin has a paper from SPECTRUM that Fernald researches wrote about the new torch and this will also be sent to all subgroup members. A question was raised as to whether the oxy-gasoline torch could be used in hot cells or PFP. Dave Langstaff said no because of the open flame being a fire danger and due to dispersibles in the work areas.

Science and Technology Needs Update

Greg Berlin stated that the S&T needs will be written up completely and approved by the end of August. There are 150 technology needs and 50 science needs total this year for all of Hanford. The question was raised as to whether the STCG should prioritize the needs to focus on a few of higher priority. There is a crude priority system used now that is a starting place. One problem discussed was that of performing a cost analysis of a new technology given that the baseline is not analyzed well. A prioritization system would need to integrate all the data to be useful. In the past the STCG tried to use a more formal prioritization approach but it was found to be too difficult to use. The subgroup thought that the crude system now used in the needs statement should continue to be utilized.

Sue Garrett discussed a new/changed science need entitled "Neutron Detection for Sorting Remote-Handled Radioactive Waste into TRU vs. Non-TRU". It was rewritten to be more precise and Dave Langstaff will work with Sue further on finalizing the need.

DDFA Midyear Review

Dave Langstaff gave an overview of the DDFA mid-year review that he attended. Dave has a book that contains 69 presentations from the review. There were 22 science presentations also. These were very technical presentations but only one or two focussed on the end results. INEEL and ORNL had very good presentations. Some of the main areas covered by these presentations included characterization technologies, decontamination technologies, robotics, material disposition, etc. Each of the large scale demos gave presentations on their program to date. Greg Berlin stated that there are a number of EMSP funded science projects that link to our Hanford needs. Greg will keep track of these projects in the future.

Dave Langstaff stopped in West Jefferson and Fernald on the way home from the mid-year review. At West Jefferson he met with individuals involved with waste management activities and new decontamination technologies. At Fernald, Dave met with the individuals working on the mobile work platform. He also met with the procurement folks. Dave distributed a draft copy of an ITSr on the Mobile Work Platform demonstrated at Fernald.

CDI/ASTD Updates

Sue Garrett updated the subgroup on CDI progress. The infrared equipment for liquid detection in tanks and pipes that was procured through a FETC PON has finished being cold tested and operators are now trained to use it. They are now using the equipment in the galleries and will move it to the canyon later this month. The HGTVehicle, a small robotic system, is being deployed into the ventilation tunnel prior to the andros robot being used there. The HGTV will do video and ultrasonic testing in the tunnel. A schedule to do 3-D imaging work via a FETC PON procurement with AIL is being negotiated. The work is to be performed this fiscal year. At least one cell per process area has been opened and more than they originally planned will be opened this year. They are now taking concrete samples at 1/4" depth and plan to purchase equipment this fiscal year to do deeper sampling next year. A number of remote coring systems are being analyzed as alternatives. AEA has finished the performance specifications for the low cost manipulators that will be part of an RFI to be issued soon.

The robotics platform ASTD project is moving ahead. A draft RFP is now being reviewed and a requirements document is being put together now. The laser cutter ASTD project, which B&W Hanford personnel are working on with NTS folks, is also continuing. Hanford personnel are meeting at NTS to work out the project responsibilities, as there are many DOE Sites involved in this ASTD effort.

Wrap-Up

Dave Langstaff distributed information on a Personal Ice Cooling System (PICS) that Fernald has tested. Greg Berlin stated that Hanford may demonstrate the PICS here also. Greg will present a video that he has on PICS at a future subgroup meeting. The subgroup discussed having an agenda item next month entitled "What Makes a Technology Program Successful". Shannon Saget suggested presenting the lessons learned from the C-Reactor Project. Dave Langstaff will present the ISMS principles as part of this discussion also. A copy of the Environmental Management Research and Development Program Plan, dated November 1998, will be sent to all subgroup members. There are sections about the DDFA and the Nuclear Materials FA that should be read by all members as they pertain to performance measurements and funding for the two focus areas for R&D over the next few years.

The next D&D subgroup meeting will be July 13 at 9 a.m. in the EESB Cayuse Room.

D&D Subgroup Meeting Attendees 06/15/99

Greg Berlin	FDH - TM	372-4352
Pam Brown	HAB	943-7348
Sue Garrett	PNNL	372-4266
Bob Julian	Ecology	736-5702
David Langstaff	DOE-RL/AMF	376-5580
Shannon Saget	DOE-RL/AMT	372-4029
Detlev Wegener	HAMMER	373-2021
Steve Weakley	PNNL	372-4275